

Case 3001

***Lactura* Walker, 1854 (Insecta, Lepidoptera): proposed conservation, and proposed conservation of the specific name of *Eustixis pupula* Hübner, [1831] (currently *Lactura pupula*)**

J.B. Heppner

Florida State Collection of Arthropods, Division of Plant Industry,
Florida Department of Agriculture & Consumer Services, P.O. Box 147100,
Gainesville, Florida 32614-7100, U.S.A.

Abstract. The main purpose of this application is to conserve the widely used name *Lactura* Walker, 1854 for a genus of moths (Microlepidoptera, superfamily ZYGAENOIDEA), now the type genus of the family LACTURIDAE Heppner, 1995. *Lactura* is a junior subjective synonym of *Eustixis* Hübner, [1831]; it is also technically junior to the simultaneously published synonym *Mieza* Walker, 1854, and the suppression of both these long disused names is proposed. The nominal species *Eustixia pupula* and *Eustixis pupula* were established with Hübner's authorship in 1823 and [1831] respectively, probably due to error since they referred to entirely different moths; it is proposed that the established usage of the North American *Eustixia pupula* (1823; PYRALIDAE) and *Lactura pupula* ([1831]; LACTURIDAE) should be maintained.

Keywords. Nomenclature; taxonomy; Lepidoptera; Microlepidoptera; LACTURIDAE; YPONOMEUTIDAE; PYRALIDAE; *Lactura*; *Lactura pupula*; *Eustixia*; *Eustixia pupula*; *Eustixis*; *Mieza*.

1. Walker (1854, p. 485) described the new genus *Lactura* for the single new species *L. dives* from 'New Holland' (actually the Bismarck Islands, near New Guinea).

2. Hübner (1823) described (p. 24, species 164) and illustrated (figs. 327, 328) a pyralid moth *Eustixia pupula* from Savannah (Georgia, U.S.A.); this was designated the type species of *Eustixia* by Kirby (1892, p. 339). The genus and species are both accepted as valid in the family PYRALIDAE (see for example Walker, 1854, p. 522; McDunnough, 1939, p. 17; Hodges et al., 1983, p. 68).

3. Notwithstanding the publication in 1823 of *Eustixia pupula*, as mentioned in the preceding paragraph, a few years later another species (no. 245) from Georgia was called *Eustixis pupula*; the name, description and illustrations were published after Hübner's death (Hübner, [1827-1831], p. 24 and figs. 489 and 490; for the dates of Hübner's works see Hemming (1937)). Under Article 21 of the Code the date of publication of *Eustixis pupula* (see Hemming, 1937, vol. 1, p. 456) is taken as [1831]. This species was designated as the type species of *Eustixis* by Grote (1875, p. 152).

4. The descriptions of *Eustixia pupula* (1823) and *Eustixis pupula* ([1831]) were not the same, although both included the phrase 'Phalaena vera, Lithosia geometri-formis', and the localities are in effect identical. However, the illustrations were of completely different moths which could not have been considered congeneric even in Hübner's time, and presumably the treatment of the species and the slight

change of spelling of the generic name were due to error. Whether or not this is so, the names *Eustixia pupula* and *Eustixis pupula* are both available and this has caused confusion.

5. *Eustixis pupula* Hübner, [1831] is congeneric with *Lactura dives* Walker, 1854 (para. 1 above). Its generic name *Eustixis* has scarcely been used as valid, the last instance being Grote (1875), and has not been associated with *Lactura* (or the synonym *Mieza* Walker, 1854, p. 527; see para. 5 below) since the time of Walsingham (1914, p. 325) and Meyrick (1914, p. 33). References for the use of *Lactura pupula* include Forbes (1930, p. 98), McDunnough (1939, p. 90), Kimball (1965, p. 292), Watson, Whalley & Duckworth (1975, p. 227), Hodges et al. (1983, p. 27), Covell (1984, p. 431), Heppner (1984, p. 56; 1995a, p. 118) and Common (1990, p. 298). *Lactura* has been placed in the microlepidoptera family YPONOMEUTIDAE (formerly spelled HYPONOMEUTIDAE), but I (Heppner, 1995b, p. 146) have treated it as the type genus of a separate family LACTURIDAE.

6. In the same work in which he published *Lactura* on p. 485, Walker (1854) established the genus *Mieza* on p. 527. Two nominal species were placed in the latter genus, the new *M. igninix* and *Eustixis laeta* Geyer, 1832; both these names are subjective synonyms of *Eustixis pupula* Hübner, [1831], as mentioned by Walsingham (1914, pp. 193 and 325) and Nye & Fletcher (1991, p. 126), so *Lactura* and *Mieza* are subjective synonyms. Although Walsingham (1914) used *Mieza* (when rejecting *Eustixis* because of its supposed homonymy with *Eustixia*) rather than *Lactura*, all subsequent authors have used *Lactura* (originally on grounds of page priority in Walker, 1854). Although Walsingham's action constitutes a First Reviser action under Article 24 of the Code, adoption now of *Mieza* would be confusing, especially since this long-disused name has never been applied to any Old World species, and I propose that it be suppressed.

7. The adoption of *Eustixis* Hübner, [1831] in place of *Lactura* Walker, 1854 would deprive us of the latter well-known generic name, as well as continuing confusion with *Eustixia* Hübner, 1823 (see para. 2 above). If, on the other hand, *Eustixis* were simply regarded as a misspelling of *Eustixia* then the specific name of *Lactura pupula* (Hübner, [1831]) would be invalid as a junior primary homonym of the pyralid *Eustixia pupula* of 1823 and a new name would be needed; this would also cause instability. As pointed out by Nye & Fletcher (1991, p. 126), it is desirable to conserve the generic name *Lactura*, and also to maintain *pupula* in both the completely different taxonomic senses in which that specific name was originally published and has remained in use.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Eustixis* Hübner, [1831];
 - (b) *Mieza* Walker, 1854;
- (2) to place the following names on the Official List of Generic Names in Zoology:
 - (a) *Eustixia* Hübner, 1823 (gender: feminine), type species by subsequent designation by Kirby (1892) *Eustixia pupula* Hübner, 1823;
 - (b) *Lactura* Walker, 1854 (gender: feminine), type species by monotypy *Lactura dives* Walker, 1854;

- (3) to place the following names on the Official List of Specific Names in Zoology:
- (a) *pupula* Hübner, 1823, as published in the binomen *Eustixia pupula* (specific name of the type species of *Eustixia* Hübner, 1823);
 - (b) *pupula* Hübner, [1831], as published in the binomen *Eustixis pupula*;
 - (c) *dives* Walker, 1854, as published in the binomen *Lactura dives* (specific name of the type species of *Lactura* Walker, 1854);
- (4) to place the following names on the Official Index of Rejected and Invalid Generic Names in Zoology:
- (a) *Eustixis* Hübner, [1831], as suppressed in (1)(a) above;
 - (b) *Mieza* Walker, 1854, as suppressed in (1)(b) above.

References

- Common, I.F.B. 1990. Superfamily Zygaenoidea. Pp. 294–309 in: *Moths of Australia*. Carlton.
- Covell, C.V., Jr. 1984. *A Field Guide to the Moths of Eastern North America*. 496 pp. Boston.
- Forbes, W.T.M. 1930. Heterocera or moths (excepting the Noctuidae, Geometridae and Pyralididae). Pp. 1–171 in: *Scientific Survey of Porto Rico and the Virgin Islands*, vol. 12, part 1. New York.
- Grote, A.R. 1875. Notes on American Lepidoptera with descriptions of twenty-one new species. *Bulletin of the Buffalo Society of Natural Sciences*, 2: 145–163.
- Hemming, F. 1937. Hübner. *A bibliographical and systematic account of the entomological works of Jacob Hübner*. Vol. 1, 605 pp.; vol. 2, 274 pp. Royal Entomological Society of London.
- Heppner, J.B. 1984. Yponomeutidae. Pp. 55–56 in: *Atlas of Neotropical Lepidoptera*. Checklist: Part 1. Micropterigoidea — Immoidea. The Hague.
- Heppner, J.B. 1995a. Lacturidae. P. 118 in: *Atlas of Neotropical Lepidoptera*. Checklist: Part 2. Hyblaeoidea — Pyraloidea — Tortricoidea. Gainesville.
- Heppner, J.B. 1995b. Lacturidae, new family (Lepidoptera: Zygaenoidea). *Tropical Lepidoptera*, 6: 146–148.
- Hodges, R.W. et al. 1983. *Checklist of the Lepidoptera of America north of Mexico, including Greenland*. 284 pp. London.
- Hübner, J. 1823. *Zuträge zur Sammlung exotischer Schmetterlinge*, vol. 1. Augsburg.
- Hübner, J. [1827–1831]. *Zuträge zur Sammlung exotischer Schmetterlinge*, vol. 3. Augsburg.
- Kimball, C.P. 1965. The Lepidoptera of Florida. An annotated checklist. *Arthropods of Florida and neighboring land areas*, vol. 1. 363 pp. Gainesville.
- Kirby, W.F. 1892. *A synoptic catalogue of Lepidoptera Heterocera (Moths)*, vol. 1. Spingees and Bombyces. 951 pp. London.
- McDunnough, J.H. 1939. Check List of the Lepidoptera of Canada and the United States of America. Part II. Microlepidoptera. *Memoirs of the Southern California Academy of Sciences*, 2: 1–171.
- Meyrick, E. 1914. Hyponomeutidae, Plutellidae, Amphitheridae. *Lepidopterorum Catalogus*, 19: 1–63.
- Nye, I.W.B. & Fletcher, D.S. 1991. *Generic names of moths of the world*, vol. 6. Microlepidoptera. 367 pp. The Natural History Museum, London.
- Walker, F. 1854. *List of the specimens of lepidopterous insects in the collection of the British Museum*, part 2 (pp. 279–585). London.
- Walsingham, T. (Lord). 1914. Fam. 18. Hyponomeutidae. Pp. 321–336 in: *Biologia Centrali-Americana. Insecta: Lepidoptera — Heterocera*, vol. 4. 482 pp., 10 pls. London.
- Watson, A., Whalley, P.E.S. & Duckworth, W.D. 1975. *The dictionary of butterflies and moths in color*. 296 pp. New York.